KHARITONOV, V. M.

AUTHORS: Kharitonov, V. M., Frunze, T. M., Korshak, V. V. 62-1-26/29

TITLE: From the Field of Heterochain Polyamides (Iz oblasti geterotsepnykh poliamidov). Report 5: The Investigation of the Kinetics of the Formation of Combined Polyamides From Hexamethylenediammonium-azelainate and ε-caprolactame (Soobshcheniye 5. Issledovaniye kinetiki obrazovaniya smeshannykh poliamidov iz geksametilendiammoniy-azelainata i ε-kaprolaktama).

PERIODICAL: Izvestiya AN SSSR Otdeleniye Khimicheskikh Nauk, 1958, Nr 1, pp 115-117 (USSR)

ABSTRACT: Before this paper the results of the investigation of the kinetics of the polycondensation of hexamethylenediammonium-adipinate and of the hexamethylenediammoniumazelainate (references 1-5) were communicated by the authors. As to the present report (5): The reaction was carried out according to the already earlier described method. It was found that in the common polycondensation of the hexamethylenediammoniumazelainate and ε-caprolactame in the first place the more active component (hexamethylenediammoniumazelainate) enters the polyamidation reaction and only in the last stages of the reaction the composition of the initial reaction mixture (and of the forming polyamides) becomes equal. Furthermore it was shown

Card 1/2

From the Field of Heterochain Polyamides. Report 5: The   62-1-26/29
Investigation of the Kinetics of the Formation of Combined Polyamides
From Hexamethylenediammonium-azelainate and $\mathcal{E}$-caprolactame

> that in the formation processes of the combined polyamides
> the structures of the forming polymers is determined only in
> the last stages by the correlation of the initial substances
> (and not by the kinetics). There are 3 figures and 5 references,
> 5 of which are Slavic.

ASSOCIATION: Institute of Elemental-Organic Compounds, AS USSR and the All-
                Union Scientific Research Institute for Synthetic Fibers
                (Institut elementoorganicheskikh soyedineniy Akademii nauk
                SSSR i Vsesoyuznyy nauchno-issledovatel'skiy institut iskusst-
                vennogo volokna)

SUBMITTED: August 8, 1957

AVAILABLE: Library of Congress

                1. Amides-Synthesis   2. Hexamethylenediammoniumazelainate-
                    Condensation reactions   3. $\mathcal{E}$-Caprolactame-Condensation reactions

Card 2/2

LEBEDEVA, A.I.; KHARITONOV, V.M.

Determination of the nonuniformity of fibers from the metric count by means of an instrument made by "Uster". Khim.volok. no.1:71-72 '61.   (MIRA 14:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo volokna.

(Nylon)

KHARITONOV, V.M.; SPERANSKIY, A.A.; GOT'YE, T.N.

Producing a dull finish of polyamide resin in the process of its manufacture. Khim.volok. no.6:56-57 '61. (MIRA 14:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut steklyanogo volokna.

(Resins, Synthetic) (Polyamides)

KHARITONOV, V.M.; SMIRNOVA, G.L.; KUDRYASHOV, S.A.; MALAFEYEV, L.A.;
BORIK, A.O.

Methods for removing polyamide resin from spinnerets.   Khim.volok.
no.6: 58-59 '61.
(MIRA 14:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut steklyanogo
volokna (for Kharitonov, Smirnova, Kudryashov, Malafeyev).
2. Klinskiy kombinat (for Borik).
(Spinning machinery)

KHARITONOV, V.M.; MORGUN, L.A.

Determining the characteristics of titanium dioxide suspensions.
Khim.volok. no.2:20-23 '62.
(MIRA 15:4)

1. Klinskiy kombinat.
(Titanium oxides)   (Suspensions (Chemistry))

S/183/62/000/005/002/002
B101/B186

AUTHORS: Kharitonov, V. M., Lebedeva, A. I., Kharitonova, G. N.,
Toropova, Ye. G., Kiriyenko, I. B.

TITLE: Production of Adimin fiber

PERIODICAL: Khimicheskiye volokna, no. 5, 1962, 47 - 49

TEXT: Experiments made in 1955 - 57 to imitate the Western Trelon fiber
had failed. The present paper gives results of experiments started
in 1961 to produce a fiber, "Adimin", from hexamethylene diammonium
adipate (AH salt) and ε-caprolactam in the ratio of 90 : 10. These
experiments were made with an apparatus used for producing caprone fiber.
The process consists in: dissolution of the two monomers; filtration of
the solution; polyamide formation; extruding of the polyamide into bands
and crumbling of the bands; drying of the polyamide and spinning; further
processing of the fiber in the textile plant. Since Adimin contains only
1.5-2% low-molecular compounds there was no need to wash out the crumbled
polyamide. The molecular weight of polyamide was found to drop with
increasing content of stabilizer (adipic acid): the MW was 23,500-24,000
with 0.45% adipic acid, and 18,700-18,800 with 0.85% adipic acid. An MW
Card 1/2

Production of Adimin fiber   S/183/62/000/005/002/002
                              B101/B186

of 18,800-20,000 is recommended for producing hosiery. Adimin is more heat-resistant than caprone, its MW remained unchanged when heated to 280°C for 1 hr. Spinning of Adimin was performed with ПП-700-И (PP-700-I) spinning machines, rate of fiber formation 700 m/min, polyamide temperature 270-271°C, drawing 1 : 3.3. The fiber showed 35-37 km breaking length and 36-38% elongation. As compared with caprone, Adimin has higher shrinkage and lower stiffness: data for fixed, twisted fiber with 200 windings per meter: shrinkage in H_2O at 100°C, 5.1% (caprone 6.5%), stiffness measured with Pavlov's pendulum apparatus, 103 (caprone 143). The fiber is easily worked into hosiery. There are 3 tables.

ASSOCIATION: VNIISV (V. M. Kharitonov, A. I. Lebedeva)
              Klinskiy kombinat (Klin Combine) (G. N. Kharitonova, Ye. G.
              Toropova, I. B. Kiriyenko)

SUBMITTED: May 3, 1962

Card 2/2

KHARITONOV, V.M.; SMIRNOVA, G.L.; KUDRYASHOV, S.A.; BORIK, A.G.;
KHARITONOVA, G.N.; TOROPOVA, Ye.G.

Capron fibers with nonround cross section. Khim.volok.
no.5:49-51 '62.
(MIRA 15:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy insitut
steklyanogo volokna (for Kharitonov, Smirnova, Kudryashov).
2. Klinskiy kombinat iskusstvennogo i sinteticheskogo
volokna (for Borik, Kharitonova, Toropova).
(Nylon)

L 21779-66 EWT(m)/EWP(j) RM

ACC NR: AP6002548 (A)

SOURCE CODE: UR/0286/65/000/023/0047/0047

AUTHORS: Trofimov, F. A.; Bukhtarova, Z. V.; Kharitonov, V. M.; Dubynin, A. A.; Kudryashov, S. A.

ORG: none

TITLE: A method for purifying polycaproamide. Class 39, No. 176680

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 23, 1965, 47

TOPIC TAGS: oligomer, polymer, vacuum refining, polyamide compound

ABSTRACT: This Author Certificate presents a method for purifying polycaproamide from low molecular impurities by means of a vacuum distillation. To improve the technological process, the cyclic oligomers of ϵ-aminocaproic acid, which are present in the impurities, are decomposed catalytically at a temperature of 250—260C.

SUB CODE: 11, 07/SUBM DATE: 14Jul64

Card 1/1

UDC: 678.675'126.025.4

L 43904-66   EWT(m)/T/EWP(j)   DJ/RM
ACC NR: AP6015651   (A)   SOURCE CODE: UR/0413/66/000/009/0059/0059

INVENTOR: Kharitonov, V. M.; Lebedeva, A. I.; Saburova, A. V.; Nikonova, Ye. A.

ORG: none

38
B

TITLE: Method for processing caprone fiber. Class 29, No. 181238 [announced by the All-Union Scientific Research Institute of Synthetic Fibers and Experimental Plant (Vsesoyuznyy nauchno-issledovatel' skiy institut sinteticheskikh volokon a eksperimental' nyy zavod)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 9, 1966, 59

TOPIC TAGS: caprone, caprone fiber, synthetic fiber, lubricant emulsifier, silicon lubricant

ABSTRACT: An Author Certificate has been issued for a method of processing caprone fiber by applying an emulsion consisting of a lubricant, an emulsifier, a stabilizer, and an antistatic on freshly spun fiber. To improve the working conditions, a silicon oil is used as the lubricant. [Translation]   [NT]

SUB CODE: 11/ SUBM DATE: 25May65/

07/

Card 1/1 RM   UDC: 677. 494. 675. 82

KHARITONOV, V.N.

Development of parametric series for abrasive tools. Standartizatsiia
26 no.5:15-18 My '62.
               (Abrasives—Standards)
                              (MIRA 15:7)

KHARITONOV, V.N., entomolog

Egyptian broomrape. Zashch. rast. ot vred. i bol. 7 no.10:
37-38 O '62.
(MIRA 16:6)

1. Oshskaya oblastnaya sanitarno-epidemiologicheskaya
stantsiya.
(Talas Valley—Broomrape)

KHARITONOV, V.N., inzh.

Automatic open arc build-up welding with a powder wire of hammers of the M20X30 crusher. Svar.proizv. no.10:33-34 O '64.

(MIRA 18:1)

1. Bryanskiy filial MPKTI Priokskogo soveta narodnogo khozyaystva.

KORTELEV, G.A., inzh.; KHARITONOV, V.N., inzh.

Wear-resistant hard facing of the D-530 road cutter blades. Svar.proizv.
no.11:37-38 N '64.   (MIRA 18:1)

1. TSentral'naya bazovaya laboratoriya svarki Priokskogo soveta
narodnogo khozyaystva.

KHARITONOV, V.N., inzhener.

Shortcomings in the hardness standards for abrasives. Standartizatsiia
no.6:51-53 N-D '56.   (MLRA 10:1)
            (Abrasives--Standards)

8(2)   SOV/161-59-1 5/25
AUTHOR: Kharitonov, Vladimir Nikolayevich, Chief Engineer

TITLE: Computation of Universal-function Potentiometers With Shunted
            Sections

PERIODICAL: Nauchnyya doklady vysshey shkoly. Elektromekhanika i avtomatika,
            1959, Nr 1, pp 35-38 (USSR)

ABSTRACT: Universal-function potentiometers must be of a design which
            allows easy tuning to the given function. Of the three main
            types only potentiometers with a forced distribution of the
            potentials according to the length of winding can therefore
            be used in this case. A potentiometer with shunted sections
            can be tuned easily if adjustable resistors are used as shunts.
            Such a potentiometer is shown in figure 1. The construction
            of such a potentiometer depends on the purpose for which
            it is used. Some variants are shown here. Formula (5) is writ-
            ten down for computing the given resistance R_0. R_0 is the

            resistance of the function potentiometer, and of the additional
            resistors between points 0 - III. The further computation of
Card 1/2   the potentiometer is done with the help of formula (4). The

SOV/161-59-1-5/29

Computation of Universal-function Potentiometers With Shunted Sections

publication of this article was recommended by the Moskovskiy aviatsionnyy institut (Moscow Aviation Institute). There are 3 figures and 3 Soviet references.

ASSOCIATION: Kafedra aviatsionnoy avtomatiki Moskovskogo aviatsionnogo instituta
(Chair of Aviation Automation at the Moscow Aviation Institute)

SUBMITTED: December 7, 1958

Card 2/2

KHARITONOV, V.N.; LITVIN, S.S.

Allowances for hole dimensions and the eccentricity of
grinding wheels. Standartizatsiia 24 no.6:23-25
Je '60.   (MIRA 13:7)
                    (Grinding wheels—Standards)

KHARITONOV, V.N.

Meaning of hardness indices in the specifications of abrasive
tools. Standartizatsiia 25 no.10:6-9 O '61.   (MIRA 14:9)
              (Grinding wheels--Standards)

TUZKOV, I.V.; KHARITONOV, V.N.

Entomophaga of gypsy moth. Zashch.rast. ot vred. i bol. 9 no.1:37
'64. (MIRA 18:2)

1. Nachal'nik Oshskoy karantinnoy inspektsii (for Tuzkov). 2. Zave-
duyushchiy laboratoriyey Oshskoy karantinnoy inspektsii (for Tuzkov).

KHARITONOV, V.N., inzh.

Production of powder wire on single-drum machines. Svar. proizv.
no.2:39-40 F '65.   (MIRA 18:3)

1. Bryanskiy mashinostroitel'nyy zavod.

KHARITONOV, V.N., inzh.

Mechanized hard facing of scarifier tires. Svar. proizv.
no.10:36-37 O '65. (MIRA 18:10)

1. Bryanskiy filial MPKTI Priokskogo soveta narodnogo
khozyaystva.

KHARITONOV, V.N., inzh.; DZHOS, V.F., inzh.

Improving the boring and blasting operations in the Artemovsk
gypsum mine. Vzryv. delo no.57/14:297-302 '65.

(MIRA 18:11)

1. Filial Instituta mekhaniki AN UkrSSR.

POPIY, M.P., gornyy inzh.; KURNIKOV, D.A., gornyy inzh.; SHISHKOV, P.A., kand. tekhn. nauk; KHARITONOV, V.P., gornyy tekhnik; NEUSTROYEV, L.G., gornyy inzh.

Method of profiling vertical mines shafts from fixed plumb lines.
Gor. zhur. no.7:67-68 Jl '64.   (MIRA 17:10)

1. Leninogorskoye shakhtostroyupravleniye (for Popiy, Kurnikov). 2. Leninogorskiy polimetallicheskiy kombinat (for Shishkov, Kharitonov). 3. Rudnik imeni 40-lotiya Vsosoyuznogo Leninskogo kommunisticheskogo soyuza molodezhi (for Neustroyev).

KHARITONOV, V.P., assistent

Thyroid gland function in some forms of "subfebrile condition."
Sbor. trud. Kursk. gos. med. inst. no.13:396-398 '58.
(MIRA 14:3)

1. Iz kliniki fakul'tetskoy terapii (zav. - prof. Kh.N.Levitan)
Kurskogo gosudarstvennogo meditsinskogo instituta.
(THYROID GLAND)   (FEVER)

AUTHOR: Kharitonov, V. P.

TITLE: New Method for Utilization of Low-Potential Heat
(Novyy sposob ispol'zovaniya tepla nizkogo potentsiala)

ABSTRACT: Low-potential heat can be utilized on a much wider scale if an
economical method of temperature step-up is developed. A thermochemical
heat transformer is suggested in which low-potential heat energy is converted
into chemical energy and then into higher-potential heat energy. Aqueous
solution of ammonium hydroxide is recommended as a working substance.
Operating principles and working cycle of the thermochemical heat transformer
with ammonium solution are described. A step-down, refrigerating scheme is
also considered. The thermochemical-transformer efficiency is evaluated at

Card 1/2

SOV/112-59-3-4541

New Method for Utilization of Low-Potential Heat

about 85-90%. Samples of thermochemical-transformer schemes taken from LTI graduate-student projects are cited. According to the author, high economic figures pertaining to these schemes allow sufficient ground for building experimental plants.

M. L. Z.

Card 2/2

KHARITONOV, V.P.; KUTSKO, Ye.A., nauchnyy red.; VASIL'YEV, A.V., red.
izd-va; GURDZHIYEVA, A.M., tekhn.red.

[Utilization of secondary power engineering resources in
industry] Ispol'zovanie vtorichnykh energeticheskikh resursov
promyshlennosti. Leningrad, Ob-vo po rasprostraneniiu polit.
i nauchn.znanii RSFSR, Leningr.otd-nie, 1959. 28 p.

(MIRA 13:1)

(Power engineering)

KHARITONOV, V.S., inzh.; SVINARENKO, V.A., inzh.; LYUSOV, V.F., inzh.

Noise control on diesel-electric powered refrigerator ships.
Sudostroenie 25 no.8:30-33 Ag '59.   (MIRA 13:1)
 (Refrigeration on ships) (Soundproofing)

KHARITONOV V. T.

AUTHOR: Kharitonov, V. T., Engineer.   96-4-5/24

TITLE: An investigation of the effectiveness of a gas ejector
with cylindrical mixing-chamber. (Issledovaniye
effektivnosti gazovogo ezhektora s tsilindricheskoy
kameroy smesheniya).

PERIODICAL: Teploenergetika, 1958, v. 5.   No.4, pp. 29-34 (USSR).

ABSTRACT: In an ejector with a cylindrical mixing-chamber, the most
efficient working condition is considered to be that in
which the low-pressure gas is accelerated to the speed of
sound in the initial section of the combustion chamber.
Calculation of the parameters of a gas mixture at critical
conditions is usually based on the gas parameters in the
initial section of the mixing-chamber. The mixed gases
in two ejectors may have the same parameters and the
supersonic speed of high-pressure gas may be the same in
both.   Then, if in the one the supersonic speed occurs
in the inner section of the mixing-chamber, and in the
other in the initial section, it is evident that both will
have identical mixture conditions in the final section of
the mixing-chamber. The article then considers a gas
ejector in which the velocity of the high-pressure gas at
Card 1/3 the inlet to the cylindrical mixing-chamber is supersonic,

An investigation of the effectiveness of a gas ejector with $^{06-4-5/24}$
cylindrical mixing-chamber.

and non-uniform in the general case. Conditions are
determined that correspond to maximum ejector efficiency.
As a practical demonstration of the analysis the case is
considered of flow in the initial section of an ejector
mixing-chamber which can ensure non-uniform supersonic
speed. The characteristic method can be used to construct
profiles of the nozzle walls which will ensure the required
non-uniform distribution of supersonic velocity in the
inlet section (see Fig.4A). In two respects the application
of such a nozzle is doubtful, and these cases are considered.
Calculations are made which show that for any given ratio
of static pressures of the mixed gases in the initial section
of the mixing-chamber, there is a definite speed of low-
pressure gas which corresponds to maximum compression ratio
of the ejector. The data show that, contrary to assertions
frequently published, the efficiency of the ejector is not
greatest when the low-pressure gas has the speed of sound
in some section of the mixing-chamber. Experimental and
theoretical data for a sonic gas ejector are shown in
Fig.6.   Curves obtained by two methods of calculation are
Card 2/3 in good agreement, and are confirmed by the experimental

An investigation of the effectiveness of a gas ejector with 96-4-5/24
cylindrical mixing-chamber.

points. Fig.7 shows experimental data for an ejector
in which the high-pressure gas nozzle is double, as in
Fig.4C. Again the experimental and theoretical data are
in good agreement.
There are 7 figures and 6 references - 3 Russian, 2 German,
1 English.

ASSOCIATION: /All-Union
Correspondence Institute of Power Engineering
(Vsesoyuznyy zaochnyy energeticheskiy Institut).

AVAILABLE: Library of Congress.

Card 3/3

KHARITONOV, V.V.

Changed design for the framing of a ship's hull. Sudostroenie
27 no.10:69 O '61.   (MIRA 14:12)
                (Hulls(Naval architecture))

BALYASNIKOV, Yuriy Mikhaylovich; KHARITONOV, V.V., redaktor; YEPISHKINA,
A.V., redaktor; SHITS, V.P., tekhnicheskiy redaktor.

[Demidov bark-stripping machine] Okorochnyy stanok Demidova.
Moskva, Goslebumizdat, 1955. 18 p.   (MLRA 8:12)
(Bark peeling)

POMERANTSEV, M.M.; KHARITONOV, V.V., redaktor; AGRANOVSKAYA, N.D.,
    redaktor; SHITS, V.P. tekhnicheskiy redaktor.

    [Loading timber with a TL-3 winch at the landing point]Pogruzka
    drevesiny lebedkoi TL-3 na nizhnem sklade. Moskva, Goslesbumizdat,
    1955. 35 p.   (MLRA 8:8)
            (Lumber--Transportation)   (Hoisting machinery)

KHARITONOV, V. V.

AUTHOR: 0 2   None Given

SCV-118-58-7-7/20

TITLE:
A Scientific-Technical Conference on Questions Regarding the Mechanization of the Lumber Industry (Nauchno-tekhnicheskaya konferentsiya po voprosam mekhanizatsii v lesnoy promyshlennosti)

PERIODICAL:
Mekhanizatsiya trudoyemkikh i tyazhelykh rabot, 1958, Nr 7, p 19, (USSR)

ABSTRACT:
In May 1958, the Moskovskiy lesotekhnicheskiy institut (the Moscow Institute of Forest Engineering) called a scientific conference. Attending were approximately 300 persons, among them representatives from the Gor'kovskiy (Gor'kiy), Kalininskiy (Kalinin), Kirovskiy (Kirov), Komi, Permskiy (Perm'), Tyumenskiy (Tyumen') and Moskovskiy (Moscow) sovnarkhozes. Also attending were delegates from big lumber enterprises, lumber mills, furniture factories; the Gosudarstvennyy nauchno-tekhnicheskiy komitet Soveta Ministrov SSSR (State Scientific Technical Committee of the USSR Council of Ministers), the USSR Gosplan, the TsNIIME, the TsNIIMOD, the Giproleaprom and from other organizations. The Member-Correspondent of the VASKhNIL, N.P. Anuchin reported on the future development of the Soviet lumber industry (1959 to 1965). The Chief Engineer of the Krestetskiy-lespromkhoz TsNIIME (the Kresttsy Lespromkhoz) reported on a semi-automatic conveyer line introduced at

Card 1/3

A Scientific-Technical Conference on Questions Regarding the Mechanization of the Lumber Industry

SOV-118-58-7-7/27

the Kresttsy lespromkhoz. The Candidate of Technical Sciences, B.A. Tauber delivered a report on the mechanization of lumber loading and stacking operations. The following reports were also heard: Dotsent N.I. Suboch - "The Present State and Development **Methods of Traction Machinery in** Lumber Transportation"; Dotsent M.I. Saltykov - "The All-Round Utilization of Raw Material and the Organization of Lumber Industry on the Principle of Continuous Forest Use"; Candidate of Technical Sciences, G A. Vil'ke - "The Vibration of Gasoline Motor Saws";scientific worker, V.V. Kharitonov - "Choosing a Method of Bark Stripping"; Dotsent M.I. Kishinskiy - "The Transportation of Lumber by Motor Transport in Winter"; Professor M.I. Zaychik - "The Exploitation of Diesel Engines at Shops"; Professor N.N. Chulitskiy - "Investigations on New Technological Equipment for Production Line and Automated Furniture Production"; Head of the Tekhnologicheskiy otdel proyektnogo instituta Nr 2 (Technological Division of the Nr 2 **Design** Institute), V.A.

Card 2/3

SOV-118-58-7-7/27

A Scientific-Technical Conference on Questions Regarding the Mechanization of the Lumber Industry

Tselebrovskiy - "Mechanization and Automation of Production Processes at the Raw Material Exchange Center of the Omutninsk House Construction Combine".

1. Lumber industry--USSR

Card 3/3

KHARITONOV, V. V.

Cand Tech Sci - (diss) "Study of the process of bark-stripping of wood on machine tools with blunt core-strippers." Leningrad, 1961. 13 pp with diagrams; (Ministry of Higher and Secondary Specialist Education RSFSR, Leningrad Order of Lenin Forestry Engineering Academy imeni S. M. Kirov); 150 copies; free; (KL, 6-61 sup, 227)

KHARITONOV, V.V.; GAVRILUSHKIN, P.V.

Self-propelled scow for heavy soil transportation. Biul.
tekh.-ekon. inform. Gos. nauch.-issl. inst. nauch. i tekh.
inform. 17 no.2:70-71 '64.   (MIRA 17:6)

KHARITONOV, V.V.

Chain-and-bucket dredge for small rivers. Biul. tekh.-ekon. inform. Gos. nauch.-issl. inst. nauch. i tekh. inform. 17 no.3:73-75 '64.   (MIRA 17:9)

KHARITONOV, V V.

RUMANIA / Pharmacology and Toxicology. Chemotherapeutic   V-9
            Agents. Antibiotics.

Abs Jour   : Rof Zhur - Biol., No 16, 1958, No 75913

Author   : Asbel, S. I.; Sokolova, V. G.; Haritonov, V. V.
Inst   : Not given
Title   : On the Effectiveness of Biomycin Treatment in Patients with
              Chronic Suppurative Diseases of the Lungs.

Orig Pub   : An. Rom. - Sov. Ser. med. gen., 1957, 11, No. 5-6; 71-75;
              Perev.-Klinich. meditsina, 1957, No. 5.

Abstract   : No abstract given.

Card 1/1

Effectiveness of biomycin treatment in chronic suppurative diseases
of the lungs. Klin.med. 35 no.5:28-32 My '57.   (MLRA 10:8)

1. Iz klinicheskogo otdela (zav. - prof. S.I.Ashbel') Gor'kovskogo
nauchno-issledovatel'skogo instituta gigiyeny truda i profzaboleva-
niy (dir. - kandidat meditsinskikh nauk O.M.Gavruseyko)
        (LUNG DISEASES, ther.
            biomycin in chronic suppurative dis.)
        (ANTIBIOTICS, ther. use
            biomycin, in chronic suppurative dis. of lungs)

KHARITONOV, V.V.

Kharitonov, V.V. -- "Investigation of Anthranilates of Elements of the Middle Quaternary Period." C₂nd Chem Sci, Ivanovo Chemicotechnological Inst, Ivanovo 1953. (REFERATIVNYY ZHURNAL-MEKHANIKA, No 1, Jan 54)

Source: SUM 168, 22 July 1954

Thermochemistry of anthranilic a...
and V. V. Kharitonov. Chem. ... Inst. ...
... Zav. Fiz. Khim. 39, 162 ... ... 7 72 ...
The heat of reaction of β-24 M ...
... NH, (II), FrAn, (III) ... An ... V ...
... V, 7nAn, (VII), and ... An, VII, ...
... acid was measured in ... ...
at 25° ... values of ... for II ...
... ...
... Measured values of the ... ...
... MnCl, 4H₂O, ...
... 2nO, ZnCl, and ... ...
... 76, 3.65 — ... and ...
... heats of formation ... II ... V-II
Δ ... where Δ is ... 20 0 ...
... ... mole resp. ... ...
2H An in I. The cake ... ...
... H = R, where H is ... ...
... and F2² ... ...
... ... of the An ...
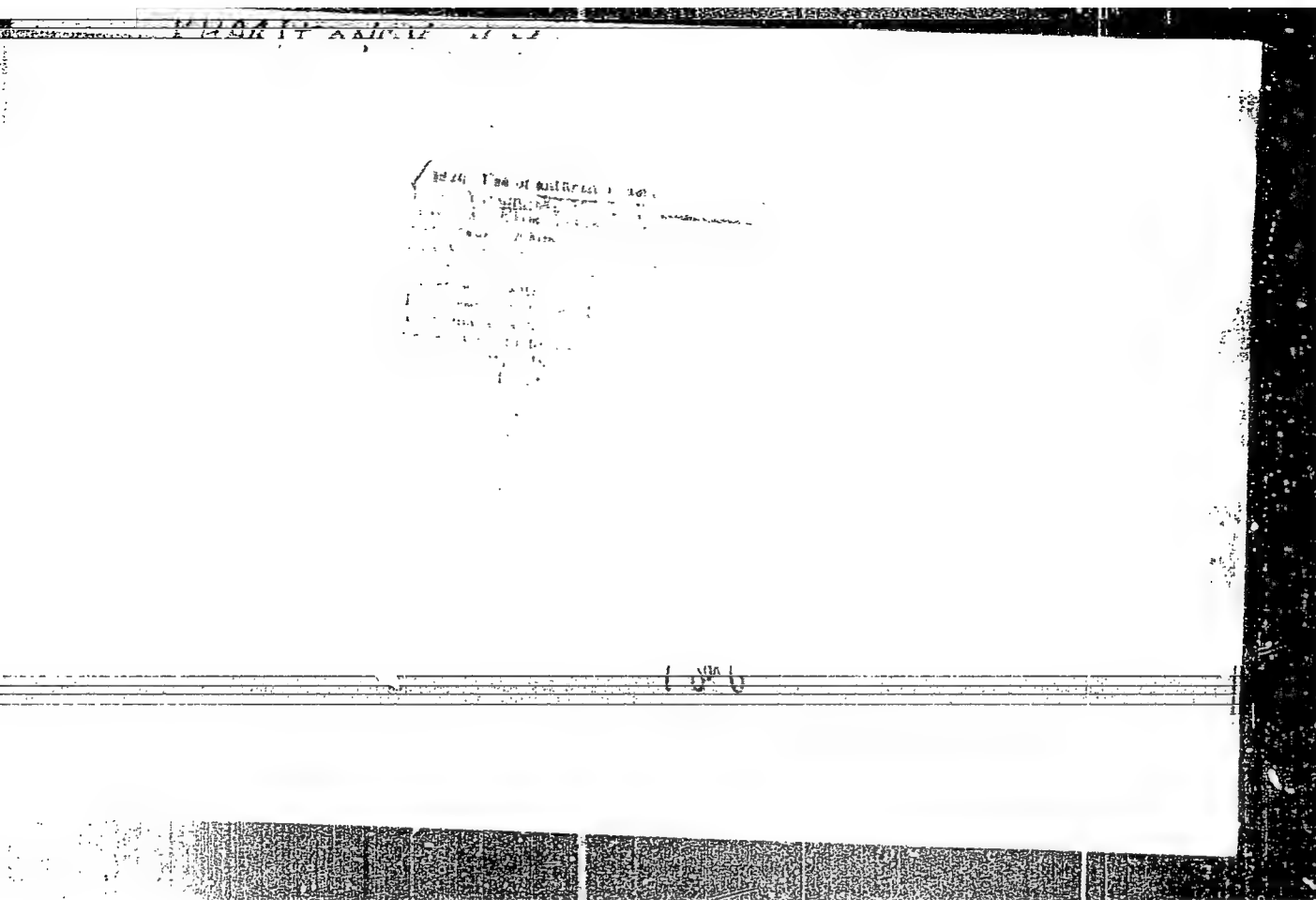
11. 5000
5. 3200

S/020/60/132/03/29/066
B011/B008

AUTHORS: Denisov, Ye. T., Kharitonov, V. V.

TITLE: Oxidation of Cyclohexanol by Ozonized Oxygen

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 132, No. 3,
              pp. 595-597

TEXT: The authors oxidized 25-30 ml cyclohexanol by means of bubbling
with oxygen which contained $0.3\pm0.03\%$ ozone, at a volume rate of
6.7 ± 0.7 l/h at 50-100°C. Cyclohexanone, H_2O_2, adipinic acid and several
esters develop by oxidation. The aggregation kinetics of the cyclo-
hexanone and the H_2O_2 is at first linear, at a considerable intensity
of the oxidation ($\sim 10\%$) the concentrations of the ketone and H_2O_2 pass
a maximum. Data concerning the composition of the products after an
oxidation lasting 2 hours are mentioned in Table 1. Compared with the
thermal oxidation at 120°C, the products of the ozonized oxidation
contain large amounts of acids and esters (10-20% instead of 1-2%). It
follows from Table 1 that oxygen does not participate in the oxidation

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Oxidation of Cyclohexanol by Ozonized
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at 50°C, but undoubtedly at higher temperatures. The authors presumed
that all 3 oxygen atoms from the absorbed ozone are absorbed into the
oxidation products. The authors further used hydroquinone as an
inhibitor in order to check the chain mechanism of the reaction. It
follows from Fig. 1 that a chain mechanism is here actually present.
The problem whether the entire cyclohexanol or only part of it is
oxidized in this way, remained unsolved. The authors found the answer
thereto in their previous paper on the thermal oxidation of the cyclo-
hexanol. Accordingly, the inclusion of the oxygen into the oxidation
and the slowing down of the reaction by the inhibitor indicates that
the reaction mechanism is chain-like. The assumption, however, that
the reaction takes its course only chain-like, contradicts the data
of the thermal oxidation of the cyclohexanol. There remains the only
assumption that 2 oxidation mechanisms are present here: a chain
mechanism with a rate v_y and a non chain-like with a rate v_{O_3}. v_{O_3}

equals the entering rate of the O_3 into the reaction vessel. $v_y \approx v_{O_3}$

at lower temperatures, v_y increases with the temperature rise

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Oxidation of Cyclohexanol by Ozonized
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(Table 2). From the energies of activation the authors come to the
conclusion that the initiation of the chains by the decomposition of
the ozone into O and O_2 does not play any significant role. The authors
determined that the concentration of the cyclohexanone decreases at the
introduction of the inhibitor at 100°C. This indicates a non chain-like
reaction mechanism of the ozone with cyclohexanone (at the thermal
oxidation cyclohexanone is only consumed on the chain way). A special
experiment showed that the ozonized O_2 leads at 80°C and with an
inhibitor to a non chain-like oxidation of the cyclohexanone. Acids are
developed thereby (the inhibitor does not hamper the reaction). A
possible scheme on the basis of the reaction of the ozone with the enol
form of the ketone is mentioned. The authors conclude from the data that
ozone reacts 20 times more quickly with cyclohexanone than with cyclo-
hexanol. The authors thank V. G. Voronkov for his assistance with the
experiments. N. M. Emanuel' is mentioned. There are 1 figure, 2 tables,
and 3 Soviet references.

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR
              (Institute of Chemical Physics of the Academy of Sciences
Card 3/4   USSR)

AUTHORS: Denisov, Ye. T. and Kharitonov, V. V. (Moscow)

TITLE: Oxidation mechanism of cyclohexanol in liquid phase

PERIODICAL: Zhurnal fizicheskoy khimii, v. 35, no. 2, 1961, 444-451

TEXT: The aim of the study is to clear up the oxidation mechanism of secondary alcohols; the oxidation of pure cyclohexanol at 110, 120, and 130°C and at atmospheric pressure has been chosen as an example. 6 l of oxygen per hr were passed through a layer of 70 ml cyclohexanol. The reaction products were mainly peroxides (H_2O_2 and oxyalkyl hydroperoxide), cyclohexanone, water, and at the beginning of the reaction, also higher esters and acids. The peroxides were determined iodometrically, and the ketones with the help of hydroxylamine; the acids were titrated against phenolphthalein; the esters were determined by saponifaction with alcoholic soda lye. Moreover, the peroxides were determined again potentiometrically. The curve for the increase of cyclohexanone (Fig. 1) shows that the reaction proceeds autocatalytically; the curve for peroxide (Fig. 2) indicates that peroxide is an intermediate product of the reaction. α-naphthol was added as inhibitor

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B107/B220

to study the kinetics of reaction. The curves for cyclohexanol (Fig. 3) show that the reaction proceeds according to the chain mechanism only; this is different with peroxide: It can be seen from Fig. 4 that it is decomposed during oxidation without free radicals being involved. Furthermore, the rate of chain initiation was investigated (Fig. 5): At 120°C it increases from $0.27 \cdot 10^{-7}$ mole/l·sec to 10^{-6} mole/l·sec. The oxidation of cyclohexanol is, thus, a degenerate branching chain reaction; its autocatalysis is caused by the formation of peroxide and further chain-initiating products (Fig. 5). At 120°C the rate constant for the decomposition of the peroxide into free radicals is $1.34 \cdot 10^{-6}$ sec^{-1}. The chain length is reduced from 1000 at the beginning of the reaction to about 100 (Fig. 6). The activation energy of the chain lengthening amounts to 7.7 kcal/mole. The relative reactivity of cyclohexanol (k_1) and cyclohexanone (k_2) with peroxide radicals amounts to $k_2/k_1 = 2.1-2$ between 120 and 130°C. The oxidation mechanism of cyclohexanol is shown in the two schemes

Card 2/6
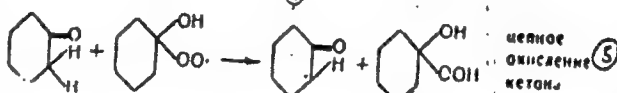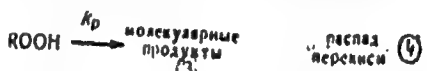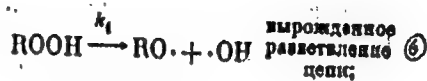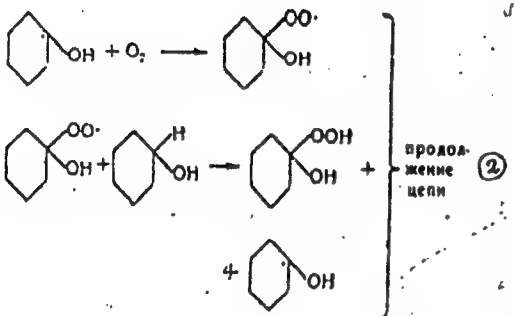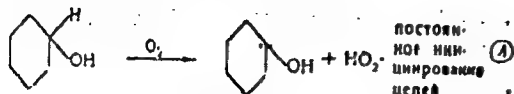
Card 3/6

Oxidation mechanism of ...   S/076/61/035/002/014/015
                                              B107/B220

There are 6 figures, 4 tables, and 8 references: 6 Soviet-bloc. The refer-
ences to English language publications read as follows: Patent Brit.
708339 5-V-1954 (according to Chemical Abstracts 48, 11017, 1954); N. Brown,
J. Amer. Chem. Soc., 77, 1765, 1955.

ASSOCIATION: Akademiya nauk SSSR Institut khimicheskoy fiziki (Academy of
               Sciences USSR, Institute of Chemical Physics)

SUBMITTED: June 26, 1959

Legend to Fig. 1: Kinetic curves showing the increasing content in cyclo-
hexanone for the oxidation of cyclohexanol (1) at 110°C, (2) at 120°C, (3) at
130°C. (x) t in hr, (y) c in moles/l.
Legend to Fig. 2: Kinetics showing the increasing content in peroxide for
the oxidation of cyclohexanol (1) at 110°C, (2) at 120°C, (3) at 130°C.
(x) t in hr, (y) c in moles/l.
Legend to Fig. 3: Kinetics of ketone formation with α-naphthol as inhibitor
at 120°C. The arrows indicate the instant at which the inhibitor was added.
(x) t in hr, (y) c in moles/l.

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3107/3220

Legend to Fig. 4: Kinetics of peroxide formation (1) in ordinary test, (2) and (3) with α-naphthol as inhibitor. (x) t in hr, (y) c in moles/l.
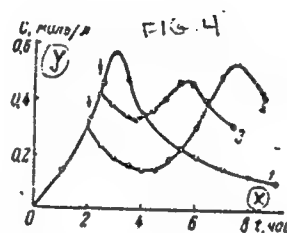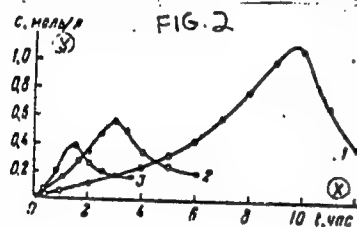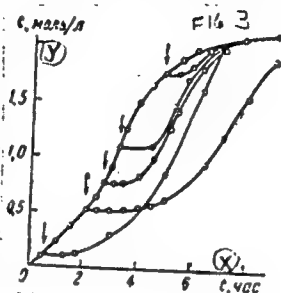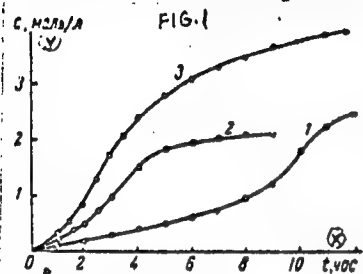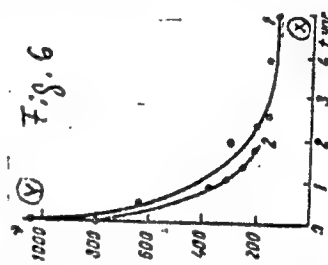

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Legend to Fig. 5: Rate of chain initiation at (1) 120°C and (3) 130°C;
(2) rate of chain initiation at 120°C, caused by peroxide only. (x) t in hr,
(y) $w_1 \cdot 10^{-7}$ moles/l·sec.

Legend to Fig. 6: chain length for the reaction of cyclohexanol at (1)
120°C and (2) 130°C. (x) t in hr, (y) chain length.

Legend to reaction schemes: (1) constant initiation; (2) chain lengthening;
(3) molecular products; (4) decomposition of peroxide; (5) chain oxidation of
ketone; (6) degenerate branching of the chain.

Card 6/6

DENISOV, Ye.T.; KHARITONOV, V.V.

Kinetics of hydrogen peroxide consumption in the oxidation of
cyclohexanol. Neftekhimiia 2 no.5:760-765 S-O '62. (MIRA 16:1)

1. Institut khimicheskoy fiziki AN SSSR.
(Cyclohexanol) (Oxidation) (Hydrogen peroxide)

ACCESSION NR: AP3005452   S/0204/63/003/004/0558/0564

AUTHORS: Denisov, Ye. T.; Kharitonov, V. V.

TITLE: Kinetic equilibrium of the concentration of the intermediate
products during oxidation reaction of cyclohexanol

SOURCE: Neftekhimiya, v. 3, no. 4, 1963, 558-564

TOPIC TAGS: cyclohexanol oxidation,   cyclohexanol, hydrogen
peroxide, cyclohexanone, kinetic equilibrium

ABSTRACT: Authors attempted to find the concentration limits of
hydrogen peroxide and cyclohexanone in the oxidation of cyclo-
hexanol. Authors discovered that maximum concentrations of H_2O_2
and cyclohexanone depend upon the initial addition of these
products to the reaction. Kinetic equilibrium of hydrogen per-
oxide concentration in the oxidizing cyclohexanol under the above
conditions was 2.7 moles/liter at 120C. An analogous experiment
was made with an initial addition of cyclohexanone. Results show
that about 20% of the added cyclohexanone is oxidized by a chain

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ACCESSION NR: AP3005452

reaction and that the rest is oxidized by H_2O_2. Thus, it was
____ __ that the oxidation products of cyclohexanone accelerate the
_____ _____ hydrogen peroxide during the oxidation of cyclo-
_____ It was established that the higher the addition of cyclo-
_____ at the beginning of the reaction, the higher is the kinetic
_____ of the cyclohexanone in the oxidized cyclohexanol.
__ ___. has: 6 figures, 1 table and 5 formulas.

ASSOCIATION: Institut khimicheskoy fiziki AN SSSR (Institute of
             chemical physics, AN SSSR).

SUBMITTED: 21Sep62   DATE ACQ: 06Sep63   ENCL: 00

SUB CODE: CH   NO REF SOV: 007   OTHER: 000

Card   2/2

KHARITONOV, V.V.

Change of thermodynamic functions during a stepped formation of glycine complexes of copper. Izv.vys.ucheb.zav.;khim.i khim.tekh. 6 no.1:44-48 '63.   (MIRA 16:6)

1. Ivanovskiy khimiko-tekhnologicheskiy institut, kafedra organicheskoy khimii.
          (Copper compounds—Thermodynamic properties) (Glycine)

DENISOV, Ye.T.; KHARITONOV, V.V.

Special features of the inhibiting action of   -naphthyl-
amine in cyclohexanol oxidation. Izv. AN SSSR. Ser. khim.
no.12:2222-2225 D '63.   (MIRA 17:1)

1. Institut khimicheskoy fiziki AN SSSR.

DENISOV, Ye.T.; KHARITONOV, V.V.

Formation of free radicals from hydrogen peroxide in cyclo-
hexanol. Kin. i kat. 5 no.5:781-786 S-O '64.   (MIRA 17:12)

1. Institut khimicheskoy fiziki AN SSSR.

DENISOV, Ye.T.; KHARITONOV, V.V. (Moscow)

Mechanism of inhibition of cyclohexanol oxidation by a -naphthol.
Zhur. fiz. khim. 38 no.3:639-644 Mr '64.   (MIRA 17:7)

1. Institut khimicheskoy fiziki AN SSSR.

peroxide

YEDOVIN, Anatoliy Nikolayevich; KHARITONOV, V.Ya., red.

[Using a winch for piling and chuting of logs] Primenenie lebedok
na shtabelevke i skatke lesa. Arkhangel'sk, Arkhangel'skoe knizh-
noe izd-vo, 1960. 102 p.   (MIRA 14:11)
                    (Winches)   (Lumbering)

KHARITONOV, Ya.N.

Initiative of the Gorkiy students. Zashch. rast. ot vred. i
bol. 9 no. 4:9-10 '64.   (MIRA 17:5)

1. Zaveduyushchiy kafedroy zashchity rasteniy Gor'kovskogo
sel'skokhozyaystvennogo instituta.

21(8)
AUTHORS:

Dolginov, A. Z., Kharitonov, Ye. V.

TITLE:

The Angular Distribution and the Polarization of β-Particles in Transitions Forbidden in Second Order

PERIODICAL:

ABSTRACT:

As shown by papers recently published, the vectorial and axially-vectorial interaction play the principal part in the conservation of time parity in β-decay processes. If it is intended to determine the nuclear matrix elements, an investigation of the forbidden β-transitions is of great interest; however, hitherto only the angular distribution and the polarization of β-particles for transitions forbidden in the first order have been theoretically investigated. In continuation of a previous paper (Ref 1), in which the method of dealing with the problem was explained, the authors therefore describe an investigation of β-transitions which are forbidden in the second and higher orders. First, the transitions forbidden in the second order are investigated: $\Delta j = 2$(no). Formulas describing the angular distribution of β-electrons in the case of orientat-

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The Angular Distribution and the Polarization of β-Particles in Transitions Forbidden in Second Order

ed nuclei are given, as also one that describes the longitudinal polarization of β-particles in approximate form. The second part of the paper deals with unique transitions $\Delta j = N + 1$. In the case of β-transitions of this kind, for which the order in which transition is forbidden, is determined by the variation of the nuclear momentum in such a manner that $\Delta j = |j_0 - j_1| = N + 1$, the formulas describing the angular correlations do not depend on the nuclear matrix elements, and therefore no conclusions may be drawn from analyses of these transitions as to nuclear structure. Such transitions are described by Gamow-Teller-interaction with a considerable contribution of A-coupling. Formulas are derived, which describe the longitudinal polarization and the angular distribution of the β-particles, at β-transitions which are forbidden in N-th order, and for orientated and nonorientated nuclei. The formulas, which are at first written down in a general manner, are specialized for the transitions $\Delta j = 3(no)$. In appendix A the coefficients occurring in the formulas (4), (5), and (7'), as

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The Angular Distribution and the Polarization of β-Particles in Transitions Forbidden in Second Order

SOV/56-37-3-28/62

well as the matrix elements K_A, K_V, and L_V are explicitly written down. In appendix B the approximation formulas, which, in the principal part describe the angular correlations for $(\alpha Z)^2 \ll 1$ and $(\alpha Z/p)^2 \ll 1$, are more accurately given (for an arbitrary Z). Appendix C finally gives numerical data for the coefficients occurring in formulas (10) - (17). There are 1 figure and 6 references, 2 of which are Soviet.

SUBMITTED: April 9, 1959

Card 3/3

24.7900

38911
S/181/62/004/006/017/051
B125/B104

AUTHORS: Antuf'yev, V. V. (Deceased), Vasil'yev, Ya. V.,
             Votinov, M. P., Kharitonova, O. K., and Kharitonov, Ye. V.

TITLE: Electron paramagnetic resonance in a titanium-oxygen system

PERIODICAL: Fizika tverdogo tela, v. 4, no. 6, 1962, 1496-1499

TEXT: The state of trivalent titanium in the oxides $TiO_{1.5}$-TiO_2 is
investigated. The epr signal from Ti^{+3} can be observed in TiO_x powder at
temperatures of from -70 to -100°C if $2.0 > x > 1.51$. The line width
increases from 45-80 oe to 200-400 oe as temperature is raised from 77°K
to 200-230°K, but the position of the lines does not change. The spin-
lattice relaxation time τ_1 as determined from the width of the experimental
absorption curve of Ti^{+3} is approximately $5\cdot10^{-9}$ sec at 77°K. τ_1 depends
on temperature approximately as T^{-n} where $n \approx 1-2$. The epr signal intensity
and the static magnetic susceptibility χ_0 likewise depend on the
composition of the TiO_x system. In the initial section of the intensity
curve, intensity
Card 1/3

$(h_2+h_1)/h_0$ increases owing to the increasing concentration of Ti^{+3} in the rutile-type lattice, where h_1 and h_2 are the moduli of the signal maximum and signal minimum and h_0 is the sum of the moduli. The peak on the intensity curve at $x \approx 1.93$ is due presumably to the formation of one or more compounds of the homologous Anderson series Ti_nO_{2n-1}. Around $x \approx 1.8$, the g-factor changes considerably and the magnetically non-equivalent positions of Ti^{+3} pass over into equivalent positions. This region corresponds to the anomalies of the isotherms of static magnetic susceptibility. In the β-phase of the TiO_x system, the Ti^{+3} ions are ambient to low-symmetry neighborhood. At a low concentration, spin-spin interaction in the TiO_x system is of minor importance. Intensity and asymmetry of the signal decrease linearly to zero in the range of ζ-phase. The g-factor of the epr signal in the β- and ζ-phases changes from 1.949 to 1.963. Absorption in T-80 (T-80) ceramic ($\varepsilon = 1.93$ and $g = 1.97$) at liquid nitrogen temperature is caused by Ti^{+3} in various crystalline

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Electron paramagnetic resonance....   S/181/62/004/006/017/051
B125/B104

surroundings. The physical and chemical processes in polycrystalline
dielectrics containing less than 87 % titanium oxides change the
intensities of the epr spectra by about one order of magnitude. There
are 1 figure and 1 table. The most important English-language reference
is: P. Chester. Bull. Amer. Phys. Soc., 5, 73, 1960.

SUBMITTED: January 22, 1962

Card 3/3

44139
S/181/62/004/010/026/063
B108/B104

AUTHORS: Korovin, L. I., and Kharitonov, Ye. V.

TITLE: The Faraday effect in a strong magnetic field in crystals in the range of the self-absorption edge

PERIODICAL: Fizika tverdogo tela, v. 4, no. 10, 1962, 2813-2817

TEXT: The frequency dependence and the order of magnitude of oscillation of the Faraday angle, of the refractive index, and of related quantities (ellipticity of the light wave etc.) are calculated for cubic crystals in a strong magnetic field in single-electron approximation. A square law of dispersion is assumed. Moreover, the valency and conduction bands are assumed not to be degenerate and to have extrema in the center of the Brillouin zone. By use of the correspondence principle of quantum mechanics,

$$N_\pm = \left(n_0^2 + D \sum_{s=0}^{\infty} F_s^\pm \right)^{1/2},$$

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The Faraday effect in a strong...

is obtained for the refractive index, whereby the electrons are assumed to be classical oscillators. The Faraday angle ϑ_F, the ellipticity t_k of the oscillations in the reflected light, the ellipticity ε_F of the transmitted light, and the rotation δ_k of the plane of polarization of the reflected light are obtained as

$$\vartheta_F = \frac{\omega z}{4 n_0 c} D \sum_{s=0}^{m} (F_s^+ - F_s^-), \qquad (13),$$

$$\varepsilon_k = -[2n_0(n_0^2 - 1)]^{-1} D \sum_{s=0}^{m} (F_s^+ - F_s^-), \qquad (14),$$

$$\qquad (15),$$

$$\varepsilon_F = \text{th}\left\{ \frac{\omega z}{4 n_0 c} D \sum_{s=0}^{m} (\Phi_s^+ - \Phi_s^-) \right\}, \qquad (16),$$

$$\vartheta_k = [2n_0(n_0^2 - 1)]^{-1} D \sum_{s=0}^{m} (\Phi_s^+ - \Phi_s^-)$$

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The Faraday effect in a strong...

where

$$F_m^{\pm} = \frac{\omega_f^{1/2}}{\omega^2} \left\{ \frac{\left[\sqrt{(\omega_m^{\pm}-\omega)^2 + \tau^2} + (\omega_m^{\pm}-\omega)\right]^{1/2}}{\sqrt{2}\left[(\omega_m^{\pm}-\omega)^2 + \tau^2\right]^{1/2}} + \frac{1}{(\omega_m^{\pm}+\omega)^{1/2}} - \frac{2}{(\omega_m^{\pm})^{1/2}} \right\}, \qquad (8),$$

$$\Phi_m^{\pm} = \frac{\omega_f^{1/2}}{\sqrt{2}\,\omega^2} \left\{ \frac{\left[\sqrt{(\omega_m^{\pm}-\omega)^2 + \tau^2} - (\omega_m^{\pm}-\omega)\right]^{1/2}}{\left[(\omega_m^{\pm}-\omega)^2 + \tau^2\right]^{1/2}} \right\}, \qquad (9),$$

$$\omega_f = \frac{E_f}{\hbar}; \quad \omega_m^{\pm} = \omega_f + \Omega\left(n + \frac{1}{2}\right) \pm \delta, \qquad (10),$$

$$D = \frac{\hbar\Omega}{E_f} \frac{|C|^2}{mE_f}\left(\frac{2\mu}{m}\right)^{1/2} \frac{e^2 m^{1/2}}{\hbar E_f^{1/2}}. \qquad (11).$$

Here E_g is the forbidden band width, Ω is the Larmor frequency. δ_F and ε_k are determined by the oscillating functions $F_m^{\pm} = \sum F_n^{\pm}$. $F_m^{\pm}$ have maxima at $\omega = \omega_g + \Omega(1 + 1/2) \pm \delta$; the maxima of F_m^- are shifted with respect to the maxima of F_m^+ by 2δ. Under the condition of a good resolution of the oscillations, $\Delta\vartheta_F = \vartheta_{F\,max} - \vartheta_{F\,min} \simeq 10^3 z$ radian/cm, where z is the sample thickness. It is shown that the oscillations of the Faraday angle and of

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The Faraday effect in a strong...   S/181/62/004/010/026/063
                                                 B108/B104

the ellipticities can be resolved better than the oscillations of the
refractive index, since these are very low as compared with the constant
background. The English-language references are: E. Burstein et al.,
Phys. Rev., 113, 15; 1959; R. Stevenson. Can. Journ. Phys., 38, 941, 1961;
B. Lax, J. Nishina. Journ. Appl. Phys., 32, 2128, 1961.

ASSOCIATION: Institut poluprovodnikov AN SSSR, Leningrad (Institute of
               Semiconductors AS USSR, Leningrad)

SUBMITTED: May 26, 1962

Card 4/4

L 19738-63   EWT(1)/BDS   AFFTC/ASD/IJP(C)

ACCESSION NR: AP3003917   S/0181/63/005/007/2035/2038

AUTHORS: Korovin, L. I.; Kharitonov, Ye. V.

TITLE: Interzonal Faraday effect in Ge in a strong magnetic field

SOURCE: Fizika tverdogo tela, v. 5, no. 7, 1963, 2035-2038

TOPIC TAGS: Faraday effect, interzonal effect, Ge, magnetic field, quantized field, quantum number, semiconductor, valence band, degeneracy, dielectric constant, conduction band, electron, relaxation time

ABSTRACT: The authors have extended the results of their previous work (FTT, 4, 2813, 1962) to the case of direct transitions in semiconductors such as Ge and have compared this theory with the experimental work of Y. Nishina, I. Kolodziejczak, and B. Lax (Phys. Rev. Lett., 9, 55, 1962). The results are shown in Fig. 1 (see enclosures). The relative contribution of "light" and "heavy" holes in the Faraday effect in Ge is determined chiefly by the coefficients of $c_\rho^\pm(\ell)$, where c is the velocity of light, ρ the level into which the valence bands have split, and ℓ the Landau number. Thus, when the angle of Faraday rotation is greater than zero, "light" holes (2^+) play the principal role, but when it is less than zero "heavy" holes (1^-) are dominant. It is noted that for "light" holes the quasiclassical

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L 19738-63

ACCESSION NR: AP3003917

value of effective mass and of energy levels is reached when $l = 5$-6. A character-
istic feature of the valence zone in Ge in a quantized magnetic field is the
presence of holes with negative effective mass. It may be pointed out that their
influence on the Faraday effect in the basic part of the Faraday rotation (as a
function of frequency) for corresponding transitions is determined by direct transi-
tions from regions where the effective mass is positive. The contribution is small
in the region where the effective mass is negative. Orig. art. has: 1 figure and
4 formulas.

ASSOCIATION: Institut poluprovodnikov AN SSSR, Leningrad (Institute of Semiconduc-
tors, Academy of Sciences, SSSR)

SUBMITTED: 19Mar63   DATE ACQ: 15Aug63   ENCL: 02

SUB CODE: PH   NO REF SOV: 001   OTHER: 007

Card 2/4

AUTHORS: Danilyuk, Yu. L.; Kharitonov, Ye. V.

TITLE: Electron paramagnetic resonance in nonstoichiometric barium titanate

TOPIC TAGS: electron resonance, paramagnetic resonance, barium titanate, nonstoichiometric barium titanate

ABSTRACT: Centers responsible for the semiconductor properties of barium titanate were studied by the method of electron paramagnetic resonance (EPR). Single crystals of $BaTiO_3$ and ceramics made of bario-titano-oxalate were used. The latter contained no more than 0.0030% of Fe and 0.0015% of Cu. Both types of samples were held for 40 min at 1200C in hydrogen. EPR was measured at frequency f = 9400 Mhertz and at T = 70K. Its spectrum consisted of six equidistant components and may be described by the Hamiltonian equation

$$\mathcal{H} = g\beta H_z S_z + ASI + eqQ \frac{3I_z^2 - I(I+1)}{4I(2I-1)}$$

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ACCESSION NR: AP4011782

for the electron spin $S = 1/2$ and for nucleus spin $I = 5/2$. Also, $g = 2.004 \pm 0.001$ and corresponds to the spectrum center, the constant of superthin structure (STS) $A = 94 \pm 4$ oersted, while the constant of quadrupolar interaction $ecQ = 20 \pm 3$ Mhertz. The nature of the spectrum is shown in Fig. 1 in the Enclosure. Results obtained by the authors differ greatly from those cited by Z. Sroubek and K. Zdansky (Czech. J. Phys., 13, 309, 1963). These differences are probably caused by the dissimilar intensities of $BaTiO_3$ reduction (the process was carried out by Sroubek and Zdansky for 10 minutes at $T = 700C$). Orig. art. has: 1 figure and 1 equation.

ASSOCIATION: none

SUBMITTED: 20Aug63

DATE ACQ: 14Feb64

ENCL: 01

SUB CODE: PH

NO REF SOV: 001

OTHER: 005

Card   2/12

LEPSKIY, A.V.; BORODULINA, Ye.V.; UGODIN, Ye.G.; PLYUKHIN, D.S.; MOROZOV, E.N.; DRUGAL', S.A.; KHARITONOV, Ye.V.; RAMODIN, V.N.; CHUPRIKOV, S.A.

[Over-all mechanization and automation of the unloading of bulk freight.] Kompleksnaia mekhanizatsiia i avtomatizatsiia vygruzki sypuchikh gruzov. Moskva, Transport, 1964. 182p. (Trudy Vsesoiuznogo nauchno-issledovatel'skogo instituta zheleznodo-rozhnogo transporta, no.285).

(MIRA 17:12)

L 3337-66   EWT(1)/T   IJP(c)
ACCESSION NR: AP5017314   UR/0181/65/007/007/2162/2173

AUTHORS: Korovin, L. I.;   Kharitonov, Ye. V.

TITLE: Theory of the line shape of interband magnetocptical absorp-
tion in the case of elastic scattering

SOURCE: Fizika tverdogo tela, v. 7, no. 7, 1965, 2162-2173

TOPIC TAGS: magnetooptic effect, semiconductor band structure, elas-
tic scattering, electron scattering, absorption line

ABSTRACT: The purpose of the investigation was to ascertain the shape
of the peaks of the interband magnetooptical absorption when succes-
sive account is taken of the interaction between the electrons and
the scatterers, and to establish how the constants that determine the
absorption curve depend on the magnetic field and on the temperature.
This is done by developing the quantum theory of the line shape in
semiconductors with a simple band structure.   The nonstationarity of
the electronic state is assumed to be due to elastic scattering of
the electrons by the acoustic phonons.   A rigorous theory is developed

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L 3337-66
ACCESSION NR: AP5017314

/2

for the quasiclassical case, when the transitions of the electron under
the influence of the light occur between Landau bands with large
quantum numbers. The absorption peaks are determined by a function
of the reciprocal relaxation time, which depends on the frequency of
the light and on the electron momentum. It is shown that in the case
of transitions between the first Landau bands there is no small para-
meter in which to expand the expression for the resonant absorption
line shape. 'We are grateful to A. I. Ansel'm, Ye. K. Kudinov, and
Yu. A. Firsov for useful discussions.' Orig. art. has: 3 figures and
32 formulas

ASSOCIATION: Institut poluprovodnikov AN SSSR Leningrad (Institute
of Semiconductors AN SSSR)

SUBMITTED: 13Feb65   ENCL: 00   SUB CODE: OP, NP

NR REF SOV: 003   OTHER: 001

Card 2/2

L 21132-66   EWT(1)/   IJP(c)
ACC NR: AP6003784   SOURCE CODE: UR/0181/66/008/001/0181/0186

AUTHORS: Korovin, L. I.; Kharitonov, Ye. V.

ORG: Institute of Semiconductors AN SSSR, Leningrad (Institut
poluprovodnikov AN SSSR)

TITLE: Contribution to the theory of interband magnetooptic
absorption in the case of scattering by impurities

SOURCE: Fizika tverdogo tela, v. 8, no. 1, 1966, 181-186

TOPIC TAGS: magnetooptic effect, impurity scattering, light absorp-
tion, phonon, elastic scattering, electron scattering

ABSTRACT: This is a continuation of an earlier study (FTT v. 7,
2162, 1965) of the line shape of magnetooptic absorption in the case
when the nonstationary behavior of the electronic states is deter-
mined by the elastic scattering by acoustic phonons. The present
study deals with the case when the nonstationary behavior is governed
by scattering of the electrons by neutral impurities with short-life
potential of randomly (uniformly) distributed impurity atoms in a

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L 21138-66
ACC NR: AP6003784

strong magnetic field. The calculation procedure is based on a method developed by O. V. Konstantinov and V. I. Perel' (ZhETF v. 39, 197, 1960). Both attracting and repelling potentials are considered. It is shown that in order to describe the scattering by the impurities in magnetooptic effects in semiconductors it is necessary to introduce two parameters, one of which depends only on the interaction between the carrier and the impurity atom, and the other depends also on the impurity concentration. The case when the impurity concentration increases linearly is considered. The formulas obtained for the absorption coefficient are found to be valid for concentrations lower than 10^{15} -- 10^{16} cm^{-3}. Orig. art. has: 3 figures and 15 formulas.

SUB CODE: 20/ SUBM DATE: 12Jul65/ ORIG REF: 004/

Card 2/2 UcR

KHARITONOV, Yu. (s.Starichi, L'vovskoy obl.); PUZRYAKOV, A. (s.Starichi, L'vovskoy obl.)

Monitoring device. Radio no.6:25 Je '61.   (MIRA 14:10)
   (Radio—Equipment and supplies)

KLEYN, A.L.; DANILOV, A.M.; Prinimali uchastiye: KOLYASNIKOV, M.P.;
MISBAKHOV, A.K.; ANTROPOVA, N.G.; NESMEYANOV, Ye.V.;
KHARITONOV, Yu.A.; TIMONINA, V.M.; LOPTEV, A.A.;
TSIKAREV, V.G.

Accelerating the assimilation of lime during slag formation
in basic open-hearth furnaces. Stal' 24 no.1:32-34 Ja '64.
(MIRA 17:2)

1. Ural'skiy nauchno-issledovatel'skiy institut chernykh
metallov i Zlatoustovskiy metallurgicheskiy zavod (for Kleyn,
Danilov).

KLEYN, A.L.; PASTUKHOV, A.I.; LEKONTSEV, A.N.; KALGANOV, O.S.;
KHARITONOV, Yu.A.

Improved technology for the conversion of Kachkanar vanadium
pig iron. Stal' 20 no. 12:1081-1086 D '60.   (MIRA 13:12)

1. Ural'skiy nauchno-issledovatel'skiy institut chernykh metallov
i Chusovskoy metallurgicheskiy zavod.
                    (Kachkanar--Cast iron--Metallurgy)

ARNAUTOV, V.T.; BARANOV, V.M.; DONSKOY, S.A.; PASTUKHOV, A.I.; SMIRNOV, L.A.;
     TORSHILOV, Yu.V.; TRET'YAKOV, M.A.; UDOVENKO, V.G.; FREYLENZON, Ye.Z.;
     SHCHEKALEV, Yu.S.; Prinimali uchastiye: MAKAYEV, S.V.; KOMPANIYETS,
     G.M.; NAGOVITSYN, D.F.; NOVOLODSKIY, P.I.; VARSHAVSKIY, V.L.;
     KOROGCDSKIY, V.G.; KLIBANOV, Ye.L.: MEDVEDEVSKIKH, Yu.; TALANTSEVA,
     T.I.; DUBROV, N.F.; DZEMYAN, S.K.; TOPYCHKANOV, B.I.; CHARUSHNIKOV,
     O.A.; KHARITONOV, Yu.A.

Developing and mastering the technology of converting vanadium
cast iron in oxygen-blown converters with a 100 ton (Mg) capacity.
Stal' 25 no.6:504-508 Je '65.   (MIRA 18:6)

1. Nizhne-Tagil'skiy metallurgicheskiy kombinat (for Makayev, Kompa-
niyets, Nagovitsyn, Novolodskiy, Varshavskiy, Korogodskiy, Klibanov,
Medvedevskikh, Talantseva). 2. Ural'skiy nauchno-issledovatel'skiy
institut chenykh metallov (for Dubrov, Dzemyan, Topychkanov, Charush-
nikov, Kharitonov).

PLYUSHINA, I.I.; KHARITONOV, Yu.A.

Crystal chemical properties and infrared absorption spectra of
borates and borosilicates. Zhur.strukt.khim. 4 no.4:555-568 Jl-
Ap '63.
(MIRA 16:9)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.
(Borates—Absorption spectra) (Borosilicates—Absorption spectra)
(Crystallography)

PASTUKHOV, A.I.; KLEYN, A.L.; ANDREYEV, T.V.; MAZUN, A.I.;
    Prinimali uchastiye: MARKIN, A.A.; SKRIPCHUK, V.S.; KHARITONOV,
    Yu.A.; SELYUTIN, N. P.; GAVRILOVA, Ye. A.
GAVRILOVA, Ye.A.

Steelmaking from vanadium cast iron in converters with a top
oxygen blow. Stal' 21 no.12:1070-1074 D '61. (MIRA 14:12)
            (Steel—Metallurgy)
            (Oxygen—Industrial applications)

KHARITONOV, Yu. G., tokar'; LENIN, A.E., redaktor; LEVONEVSKAYA, L.G., tekhnicheskiy redaktor,

[In search of new methods] V poiskakh novogo. [Leningrad] Lenizdat, 1956. 55 p.   (MLRA 10:4)

1. Leningradskiy metallicheskiy zavod (for Kharitonov).
        (Turning)

BENOYEVA, N.A.; BOGDANOVA, G.P.; CHITSIN, Ye.V.; KHARITONOV, Yu.1.

Effect of potassium and calcium ions on the assimilation of reflex stimulation rhythms in frogs. Nauch. trudy Riaz. med. inst. 15:5-7 '62.
(MIRA 17:5)

1. Kafedra normal'noy fiziologii (zav. kafedroy - prof. V.F.Shirokiy, rukovoditel' raboty - I.P.Potapov) Ryazanskogo meditsinskogo instituta imeni Pavlova.

85864

S/048/59/023/012/009/009
B006/B060

24.6520

AUTHOR: Kharitonov, Yu. I.

TITLE: Calculation of the Energy Levels of the Nuclei Tl^{206} and Bi^{210}

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959, Vol. 23, No. 12, pp. 1520 - 1525

TEXT: The configuration of these two odd-odd nuclei differs from that of the Pb^{208} nucleus which exhibits filled neutron- as well as filled proton shells by the existence of two holes, or two nucleons above the filled shells. The wave functions of neighboring nuclei with one nucleon or one hole above the filled shells are used for the theoretical investigation. This publication offers numerous numerical results on energy levels of both nuclei distinctly compiled in Tables and level schemes. The following Tl^{206} level scheme is proposed:

Card 1/4

85064

24.6520

S/048/59/023/012/009/009
B006/B060

AUTHOR: Kharitonov, Yu. I.

TITLE: Calculation of the Energy Levels of the Nuclei Tl^{206} and Bi^{210}

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959, Vol. 23, No. 12, pp. 1520 - 1525

TEXT: The configuration of these two odd-odd nuclei differs from that of the Pb^{208} nucleus which exhibits filled neutron- as well as filled proton shells by the existence of two holes, or two nucleons above the filled shells. The wave functions of neighboring nuclei with one nucleon or one hole above the filled shells are used for the theoretical investigation. This publication offers numerous numerical results on energy levels of both nuclei distinctly compiled in Tables and level schemes. The following Tl^{206} level scheme is proposed:

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Calculation of the Energy Levels of the
Nuclei Tl^{206} and Bi^{210}

S/048/59/023/012/009/009
B006/B060

E[kev]

9^- ———— 80 - $20.9 \ V_t + 7.4 \ V_s$

2^- ———— 60 - $15.1 \ V_t + 0.4 \ V_s$

1^- ———— 20 - $7.8 \ V_t + 0.3 \ V_s$

0^- ———— 0 -

E[kev]

9^- ———— 80 $13.1 \ V_t + 7.1 \ V_s$

2^- ———— 60 $7.3 \ V_t + 0.1 \ V_s$

0^- ———— 20 $7.8 \ V_t + 0.3 \ V_s$

1^- ———— 0

When using experimental data the following variants may be suggested:

E

220 ——————— 9^-

120 ——————— 2^-

50 ——————— 1^-

0 ——————— 0^-

E[kev]

150 ——————— 9^-

50 ——————— 0^-

30 ——————— 2^-

0 ——————— 1^-

Card 3/4